

Work Order ID 140667-1

January 13, 2016 11:20:08 AM

SPLIT 2

140667

Please cut Jan 14-18

Page 1

Item ID: D4354-041

Accept

N900040100

Setup Start

NS1

Revision ID:

Item Name: Bearpaw Wearplate Assembly

Stop

NS2

Start Date: 1/13/2016 Start Qty: 15.00

15

7

Cust Item ID:

Required Date: 1/19/2016 Req'd Qty: 15.00

15

Customer:

Reference:

Approvals:

Process Plan:

SM

Date:

20160113

Tooling:

Date:

QC:

Date:

SPC (Y/N):

Date:

Run Start

NR1

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D4354

b

100

0.00

100

Waterjet

FLOW CNC Waterjet

Memo

1-Cut as per Dwg (D4354-1)

Dwg Rev: b

Prog Rev: b

2-Deburr if necessary

0.10

(18)

01/16/18

110

QC2- Inspect parts off machine FAI/FAIB

0.00

110

QC

Quality Control

Memo

0.00

(18)

01/16/18

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Work Order ID 140667***140667***

Page 2

January 13, 2016 11:20:08 AM

Item ID: D4354-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Bearpaw Wearplate Assembly
Start Date: 1/13/2016 Start Qty: 15.00 ***15*** Cust Item ID:
Required Date: 1/19/2016 Req'd Qty: 15.00 ***15*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120 *120* QC Quality Control	QC8- Inspect parts - second check Memo	0.00 0.01				(18)			DAS 38 9-89 JAN 18 2016
130 *130* Large Fab Large Fab	Memo 1- Weld cups as per dwg A/R S.S. ROD BATCH: 130145 2- Apply hardfacing on wearplate as indicated on dwg A/R HARDCOAT 2059B BATCH: 123823	0.00 0.27				7			16-03-04 JAL
140 *140* QC Quality Control	QC5- Inspect part completeness to step on W/O Memo	0.00 0.01				①	16-03-01	8D	

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition			
JAC 95				Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Work Order ID 140667

140667

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January 13, 2016 11:20:08 AM

Item ID: D4354-041 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Bearpaw Wearplate Assembly
 Start Date: 1/13/2016 Start Qty: 15.00 *15* Cust Item ID:
 Required Date: 1/19/2016 Req'd Qty: 15.00 *15* Customer:
 Reference:

Approvals: Process Plan: Date: Tooling: Date: Run Start *NR1*
 QC: Date: SPC (Y/N): Date: Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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150	QC9- Inspect visual per QSI004- Fusion Welds	0.00							
150									
QC	Memo	0.00							
Quality Control									

160	Identify as per dwg & Stock Location: 8604	0.00							
160									
Packaging	Memo	0.00							
Packaging									

170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.03							
Quality Control									

① 16-03-07 PD.

7 DAS 8 9-09
 MAR 08 2016

MCJ MAR 08 2016
 MF
 16-17-8

DQA: _____ Date: _____

**WORK ORDER NON-CONFORMANCE / UPDATE**

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																																													
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Picklist Print

January 13, 2016 11:20:12 AM

Page 1

Work Order ID: 140667

140667

Parent Item: D4354-041

D4354-041

Parent Item Name: Bearpaw Wearplate Assembly

Start Date: 1/13/2016

Required Date: 1/19/2016

Start Qty: 15.00

Required Qty: 15.00

Comments: IPP REV:A 11.04.11 NEW ISSUE DD VERF:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S16GA		Purchased	No			100	sf	162.4500	0.9223	14.56263			

M304S16GA

304/316 Sheet .063

16/01/18

Location

Loc Qty

Loc Code

MAT019

162.45

m132797

2.45

m133511

160

D4379-1

Manufactured

No

130

Each

84.0000

10

18

150

16/01/18

D4379-1

Wearplate Cup

Location

Loc Qty

Loc Code

WA002

84

133469

26

136603

58

~~B440673 X285760~~

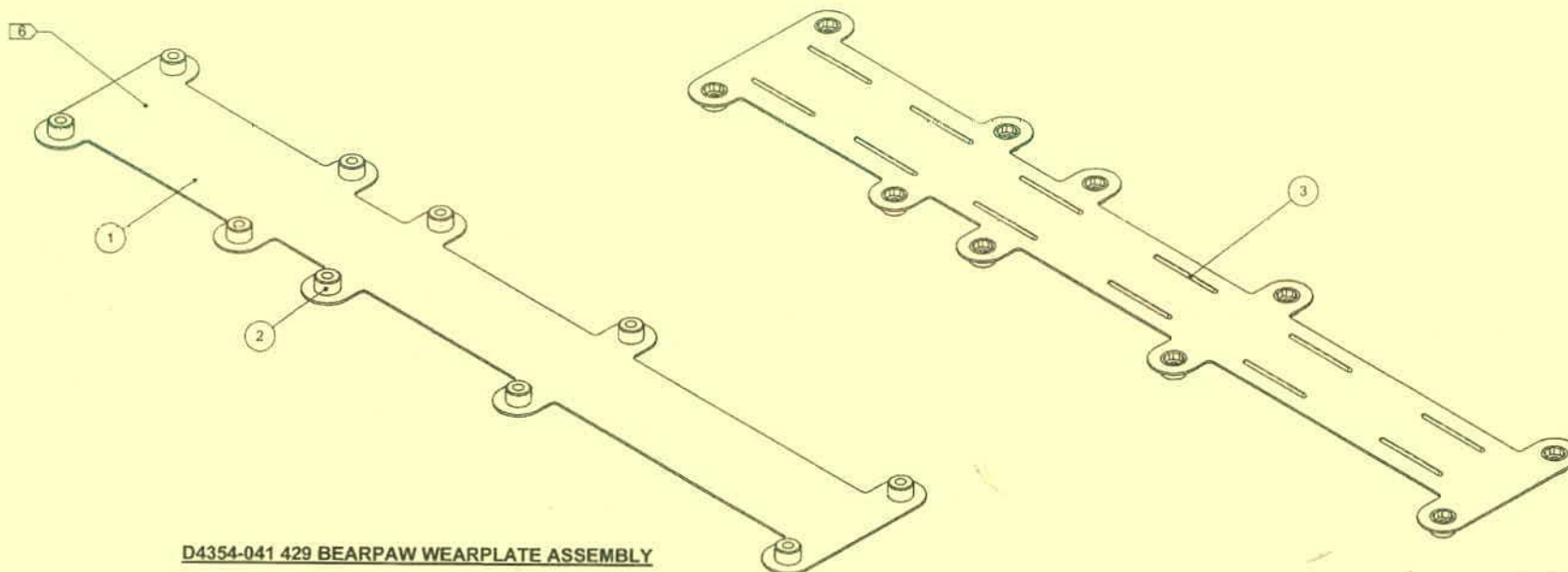
141338

70

16-03-03

7AL

ITEM	QTY -041	P/N	DESCRIPTION
	X	D4354-041	429 BEARPAW WEARPLATE ASSEMBLY
1	1	D4354-1	429 BEARPAW WEARPLATE
2	10	D4379-1	WEARPLATE CUP
3	A/R	2059B	HARDCOAT



D4354-041 429 BEARPAW WEARPLATE ASSEMBLY

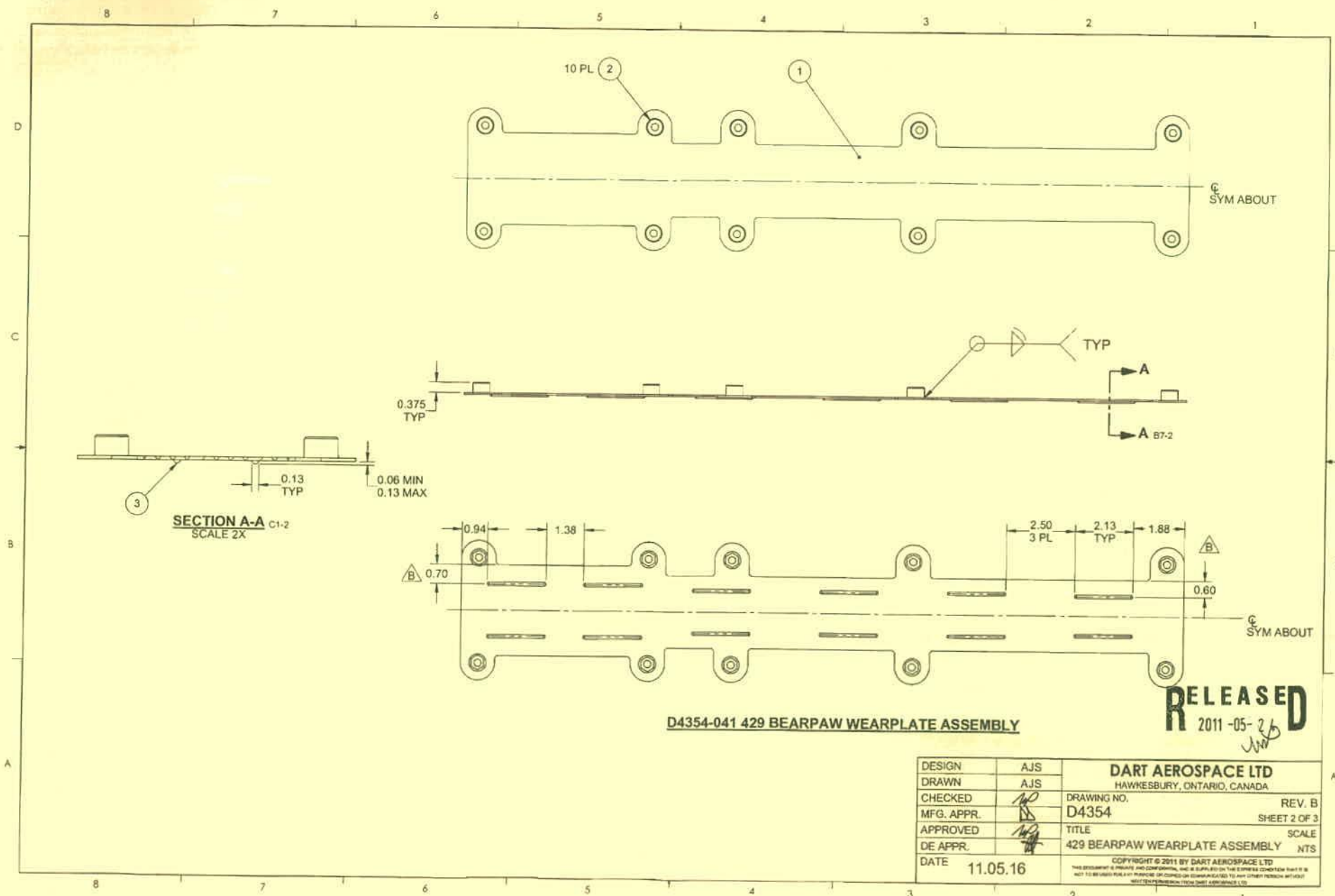
RELEASED
2011-05-25

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D4354-041" AND B/N "BXXXXX" PER DART QSI 044 6.1 (FINE POINT MARKER)
- 7) WEIGHT: 1.76 lbs
- 8) WELDING: PER QSI 004
- 9) 2059B HARDCOAT WELD, 12 PL

B	SHT 3, LIGHTENING HOLES DELETED; SHT 2 ZONE B1 & B6 HARDCOAT RELOCATED. REASON: PROTECTION OF BEARPAW.	AJS	11.05.16
A	NEW ISSUE	AJS	11.03.24
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4354	SHEET 1 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	429 BEARPAW WEARPLATE ASSEMBLY	NTS
DATE	11.05.16	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL. AND IS SUPPLIED ON THE UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR FOR DISSEMINATION TO ANY OTHER PERSON OR ENTITY WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	

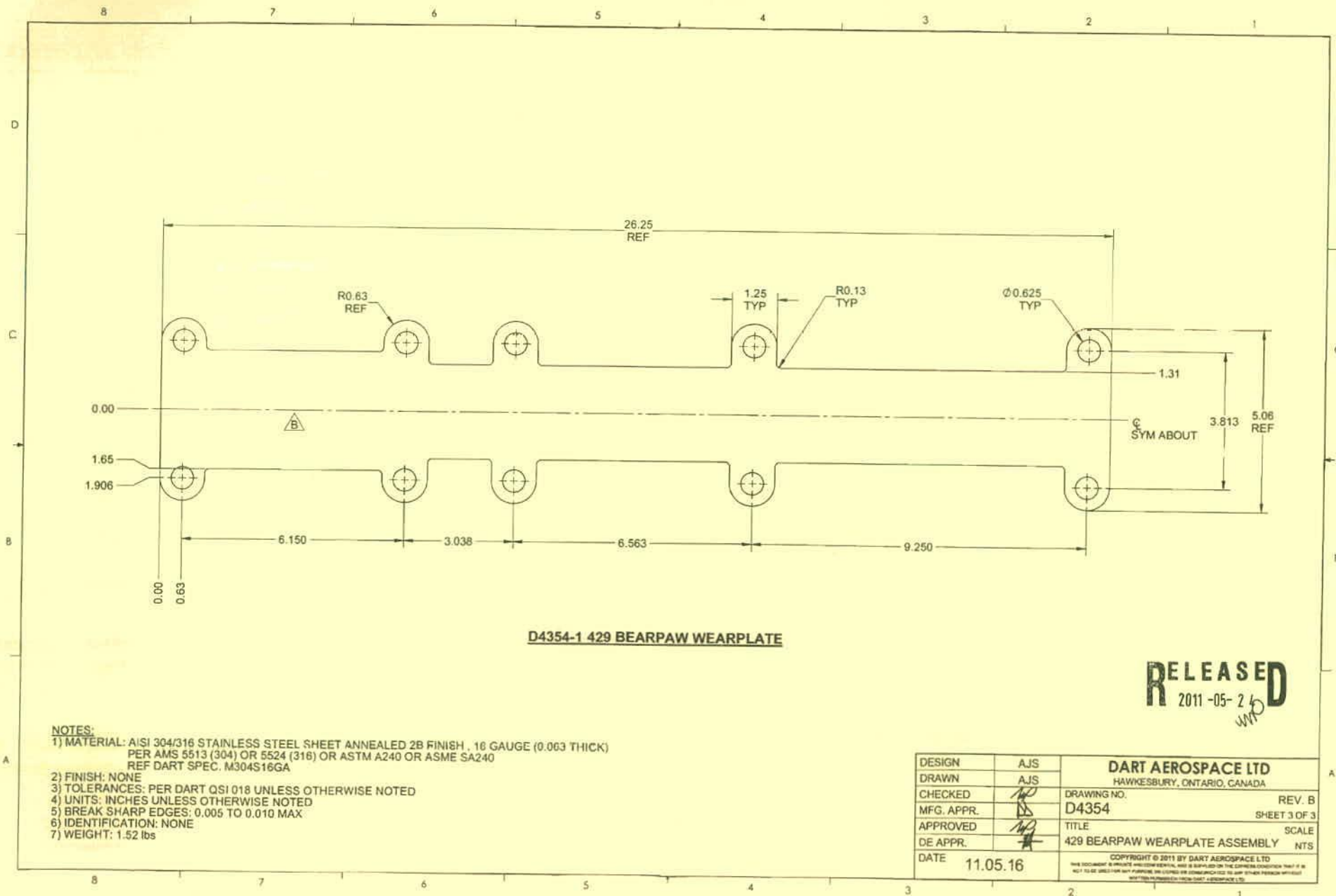
20160113
140667



D4354-041 429 BEARPAW WEARPLATE ASSEMBLY

RELEASED
2011-05-26
JWS

DESIGN	AJS	DART AEROSPACE LTD	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D4354	SHEET 2 OF 3
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	429 BEARPAW WEARPLATE ASSEMBLY	NTS
DATE	11.05.16	COPYRIGHT © 2011 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL, AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSES OTHER THAN THAT FOR WHICH IT WAS SPECIFICALLY SUPPLIED WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	



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 2011-05-26
WHP

FIRST ARTICLE INSPECTION CHECKLIST

Measured by: <i>mc</i>		Audited by: <i>38</i>		Preliminary Approval:	
Date: <i>16/01/18</i>		Date: <i>JAN 18 2016</i>		Date:	
Rev	Date	Change			Revised by
A	11.07.26	New Issue			KJ
P/O D4354-041					Approved